

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 January 2003 (23.01.2003)

(10) International Publication Number
WO 03/006788 A1

(51) International Patent Classification⁷: E21B 43/10
(21) International Application Number: PCT/EP02/07882
(22) International Filing Date: 10 July 2002 (10.07.2002)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
01306050.4 13 July 2001 (13.07.2001) EP
(71) Applicant (for all designated States except CA, US): SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V. [NL/NL]; Carol van Bylandtlaan 30, NL-2596 HR The Hague (NL).
(71) Applicant (for CA only): SHELL CANADA LIMITED [CA/CA]; 400 - 4th Avenue S.W., Calgary, Alberta T2P 2H5 (CA).

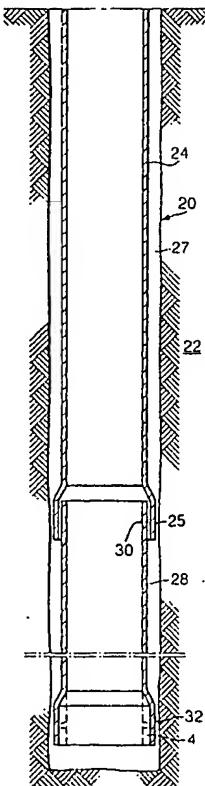
(72) Inventor; and
(75) Inventor/Applicant (for US only): LOHBECK, Wilhelmus, Christianus, Maria [NL/NL]; Volmerlaan 8, NL-2288 GD Rijswijk (NL).
(81) Designated States (national): AF, AG, AI, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,

[Continued on next page]

(54) Title: METHOD OF EXPANDING A TUBULAR ELEMENT IN A WELLBORE



WO 03/006788 A1



(57) Abstract: There is provided a method of radially expanding a tubular element extending into a wellbore, the tubular element having a first section to be expanded to a first diameter and a second section to be expanded to a second diameter, the first diameter being larger than the second diameter. The method comprises arranging an expander in the wellbore, the expander including a first expander member and a second expander member, wherein the first member has a larger outer diameter than the second member, said members being releasably interconnected. The expander is moved through the first tubular section thereby expanding the first tubular section to the first diameter, whereafter the second expander member is released from the first expander member. The second expander member is then moved through the second tubular section so as to expand the latter to the second diameter.



TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*